Remarks

Claims 1-76 are pending. Claims 2, 6, 10, 14, 15, 21, 25, 29, 33, 34, 38, 40, 42, 44, 45, 48, 52, 53, 59, 63, 67, 71, and 72 have been amended.

The applicant expresses regret for the numerous formal and typographical errors in the specification and claims. The applicant appreciates the Examiner's efforts in identifying some of these errors, and has made every effort to correct all of these errors.

In the Specification

The specification has been amended as illustrated above to correct several typographical errors. No new matter has been added.

Claim Objections

Claims 38, 42, and 45 have been amended to address the Examiner's objections. Additionally, claims 2, 6, 10, 14, 15, 21, 25, 29, 33, 34, 40, 44, 48, 52, 53, 59, 63, 67, 71, and 72 have been amended to address various formal matters. No new matter has been added. Regarding the objection to claims 10, 29, 48, and 67, the applicant respectfully submits that use of the term "sending" is proper. See, for example, p. 9 of the applicant's specification.

Rejection of Claims under 35 U.S.C. § 103

Claims 1-6, 20-25, 39-44, and 58-63 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Balazinski et al, U.S. Patent Publication No. 2002/0097707 (Balazinski) in view of Hariharasubrahmanian, U.S. Patent No. 6,819,681. Claims 7-12, 14-17, 19, 26-31, 33-36, 38, 45-50, 52-55, 57, 64-69, 71-74, and 76 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Balazinski in view of Hariharasubrahmanian and Hong et al., U.S. Patent No. 6,359,894 (Hong). Claims 13, 18, 32, 37, 51, 56, 70 and 75 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Balazinski in view of Hariharasubrahmanian, Hong, and Maggenti et al., U.S. Patent No. 6,477,150 (Maggenti). The applicant respectfully traverses these rejections.

Balazinski, Hariharasubrahmanian, Hong, and Maggenti taken alone or in combination fail to teach or suggest a method including:

if a first response to said first packet is expected by said first network element, determining expected contents of said first response, and

if said expected contents of said first response to said first packet require a response, responding with a second packet before receiving said first response;

as required by independent claim 1 and generally required by independent claims 20, 39, and 58.

Regarding these limitations, the Examiner refers to column 2, lines 64-67 of Hariharasubrahmanian. Column 2, lines 61-67 states:

Systems and methods consistent with the present invention address these and other needs through mechanism that permit communication devices to predict one or more bit-fields in one or more packets before all these packets are received, thereby using their resources efficiently and permitting the devices to respond to these sets of packets before all the packets of the set have been received.

The applicant respectfully submits that the cited portion of Hariharasubrahmanian neither teaches nor suggests: (1) determining expected contents of the first response when the first response to the first packet *is expected by said first network element*, and (2) responding with a second packet *before receiving the first response* when the expected contents of the first response to the first packet *require a response*.

That Hariharasubrahmanian fails to teach or suggest the applicant's claim limitations can be further seen by reference to the stated problems Hariharasubrahmanian seeks to solve. For example, Column 1, line 55 through column 2, line 3 states:

Sometimes, a conventional technique used by a communication device includes receiving one or more packets produced in accordance with the fragmentation or segmentation procedures of a lower layer protocol, storing them in a local memory for later processing in accordance with a higher layer protocol. The packets produced in accordance with the lower layer protocol might be referred to as fragments or segments, or in general packets. Likewise, the packets which are in accordance with the formatting specifications of the upper layer protocol may also be referred to as segments, or fragments or in general packets.

A specific processing requirement that conventional techniques sometimes dictate requires processing of a packet formatted in accordance with the specifications of one protocol layer only after an adequate number of bit-fields from the packet have been received.

Thus, Hariharasubrahmanian is concerned with the problem of predicting one or more bit-fields in one or more packets before all the packets or portions thereof are received. See also, **Figures 7A-7B** and column 8, line 14, through column 9, line 43 where the flowcharts illustrate, *inter alia*, receiving a packet field (**810**), analyzing the value in the field, and predicting the values for one or more fields that have yet to arrive, such as fields **820** and **830**. Hariharasubrahmanian clearly seeks to predict some parts of a packet based on other parts, rather than determining expected contents of a response to a previously transmitted packet or responding with a second packet before receiving the expected response.

The applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness. In addition to the claim elements not taught or suggested by the cited references as described above, the Examiner has not shown that there is a reasonable expectation of success in the combination. More specifically, the applicant respectfully submits that the Examiner has not demonstrated that Hariharasubrahmanian's techniques for predicting the value of certain packet fields based on other field values from the same packet: (1) can be applied to the packets used for PPP negotiation, or (2) will achieve any improvement in the PPP negotiation.

Accordingly, the applicant respectfully submits that independent claims 1, 20, 39, and 58 are allowable over Balazinski, Hariharasubrahmanian, Hong, and Maggenti taken alone or in combination. Claims 2-19 depend from claim 1 and are allowable for at least this reason. Claims 21-38 depend from claim 20 and are allowable for at least this reason. Claims 40-57 depend from claim 39 and are allowable for at least this reason. Claims 59-76 depend from claim 58 and are allowable for at least this reason.

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In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on _____Sept 6_____, 2005.

_____ 9/6/05
Attorney for Applicant(s)   Date of Signature

Respectfully submitted,

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